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EXAMINER	
LEE, JOHN J	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/730,660	KARABINIS, PETER D.	
	Examiner	Art Unit	
	JOHN J. LEE	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,8,9,11,15,16,18,22,23,25,29,30,32,36,37,39 and 43-54* is/are rejected.

7)☒ Claim(s) *3,5-7,10,12-14,17,19-21,24,26-28,31,33-35,38 and 40-42* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/22/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments/Amendment

1. Applicant's arguments with respect to claims 1 - 54 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims **1, 2, 4, 8, 9, 11, 15, 16, 18, 22, 23, 25, 29, 30, 32, 36, 37, 39, and 43-54** are rejected under 35 U.S.C. 103(a) as being unpatentable over Regulinski et al. (US 2005/0260948) in view of Emmons, Jr. et al. (US 6,570,858).

Regarding **claim 1**, Regulinski teaches a satellite radiotelephone system (Fig. 1). Regulinski teaches that a space-based component (satellite (4) in Fig. 1) that is configured to receive wireless communications from radiotelephones (2 in Fig. 11) (satellite (4) wirelessly receives signal or communication frequency from the mobile terminal) in a satellite footprint (Fig. 11 teaches satellite footprint, also Fig. 4a) over an uplink satellite radiotelephone frequency (uplink satellite radio frequency in Fig. 1) and to transmit wireless communications (downlink wireless communication frequency see Fig. 11) to the radiotelephones (2 in Fig. 11) over a downlink satellite radiotelephone frequency (downlink satellite radio frequency in Fig. 1) (Fig. 11 and pages 3, paragraphs

50, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication). Regulinski teaches that an ancillary terrestrial network (terrestrial node (119) in Fig. 11) that is configured to transmit wireless communications (wirelessly transmitting to downlink radio frequency) to, and receive wireless communications (wirelessly receiving uplink radio frequency) from, the radiotelephones (mobile terminals) over the downlink satellite radiotelephone frequency (downlink satellite radio frequency) in a time-division (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regulinski does not specifically disclose the limitation "an ancillary terrestrial network is configured to transmit wireless communications to, and receive wireless communications from, the radiotelephones over the downlink satellite radiotelephone frequency in a time-division duplex mode". However, Emmons supportly teaches the

limitation "an ancillary terrestrial network (30) is configured to transmit wireless communications to (Fig. 1), and receive wireless communications from (Fig. 1), the radiotelephones (32) over the downlink satellite radiotelephone frequency (38) in a time-division duplex mode" (see Fig. 1, 5, column 2, lines 12 – 51, and column 3, lines 10 – column 5, lines 42). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Regulinski's system as taught by Emmons, provide the motivation to enhance satellite transmission and reception performance for using time division duplex mode between mobile terminal and base station via satellite.

Regarding **claim 2**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that the ancillary terrestrial network also is configured to transmit wireless communications to (terrestrial node (119) transmits wireless communication channels to mobile terminals in Fig. 11), and receive wireless communications from, the radiotelephones over the uplink satellite radiotelephone frequency in a time-division (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a call, and an terrestrial base node

configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 4**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 9) and wherein the ancillary terrestrial network (119 in Fig. 11) is configured to transmit wireless communications to, and receive wireless communications from, the radiotelephones (terrestrial downlink and uplink frequency band) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 9, 10) in a time-division duplex mode (Fig. 9, 10, pages 3, paragraphs 50 and pages 8, paragraphs 143, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency band allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 8**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that an ancillary terrestrial component (terrestrial node (119) in Fig. 11) for a satellite radiotelephone system (Fig. 1) that includes a space-based component (satellite (4) in Fig. 1) that is configured to receive wireless communications from radiotelephones (2 in Fig. 11) (satellite (4) wirelessly

receives signal or communication frequency from the mobile terminal) in a satellite footprint (Fig. 11 teaches satellite footprint, also Fig. 4a) over an uplink satellite radiotelephone frequency (uplink satellite radio frequency in Fig. 1) and to transmit wireless communications (downlink wireless communication frequency see Fig. 11) to the radiotelephones (2 in Fig. 11) over a downlink satellite radiotelephone frequency (downlink satellite radio frequency in Fig. 1) (Fig. 11 and pages 3, paragraphs 50, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a call). Regulinski teaches that the ancillary terrestrial component (terrestrial node (119) in Fig. 11) comprises an electronics system (electronics system in Fig. 1 and pages 4, paragraphs 87) that is configured to transmit wireless communications to (wirelessly transmitting to downlink radio frequency), and receive wireless communications (wirelessly receiving uplink radio frequency) from, the radiotelephones (mobile terminals) over the downlink satellite radiotelephone frequency (downlink satellite radio frequency) in a time-division (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a

particular frequency allocated on initiation of a call, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 9**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that the electronic system also is configured to transmit wireless communications to, and receive wireless communications from, the radiotelephones over the uplink satellite radiotelephone frequency in a time-division (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 11**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 9) and wherein the electronics system (119 in Fig. 11) is configured to transmit wireless communications to, and receive wireless

communications from, the radiotelephones (terrestrial downlink and uplink frequency band) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 9, 10) in a time-division duplex mode (Fig. 9, 10, pages 3, paragraphs 50 and pages 8, paragraphs 143, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency band allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 15**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that an electronics system (mobile terminal or base station) that is configured to transmit wireless communications to a space-based component (satellite (4) in Fig. 1) over an uplink satellite radiotelephone frequency (satellite (4) wirelessly receives signal or communication frequency from the mobile terminal) and to receive wireless communications (uplink wireless communication frequency see Fig. 11) from the space-based component (satellite (4) in Fig. 1) over a downlink satellite radiotelephone frequency (downlink satellite radio frequency in Fig. 11) (Fig. 11 and pages 3, paragraphs 50, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel to mobile terminal and uplink channel from mobile terminal, for example a TDMA time slot on a particular frequency allocated on

initiation of a communication). Regulinski teaches that the electronics system (terrestrial node or mobile terminal in Fig. 11) further configured to transmit wireless communications to (wirelessly transmitting to uplink radio frequency), and receive wireless communications from (wirelessly receiving downlink radio frequency), an ancillary terrestrial component (119 in Fig. 11) over the downlink satellite radiotelephone frequency (downlink satellite radio frequency) in a time-division (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a call, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 16**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that the electronic system also is configured to transmit wireless communications to, and receive wireless communications from, the ancillary terrestrial component over the uplink satellite radiotelephone frequency in a time-division (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the

terrestrial system is TDMA/FDMA) duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite or base station via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 18**, Regulinski and Emmons teach all the limitation as discussed in claim 1. Furthermore, Regulinski teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 9) and wherein the electronics system (mobile terminal or base station in Fig. 11) also is configured to transmit wireless communications to, and receive wireless communications from, the ancillary terrestrial component (base station or mobile terminal in Fig. 11) (terrestrial downlink and uplink frequency band) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 9, 10) in a time-division duplex mode (Fig. 9, 10, pages 3, paragraphs 50 and pages 8, paragraphs 143, where teaches for communication via the satellite network and base station, each mobile terminal is in communication with satellite or base station via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency band allocated on initiation of a communication, and an terrestrial base node configures to transmit

downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 22**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that receiving wireless communications (receiving uplink communication in Fig. 11) at a space-based component (satellite (4) in Fig. 1) from radiotelephones (2 in Fig. 11) (satellite (4) wirelessly receives signal or communication frequency from the mobile terminal) in a satellite footprint (Fig. 11 teaches satellite footprint, also Fig. 4a) over an uplink satellite radiotelephone frequency (uplink satellite radio frequency in Fig. 1) (Fig. 11 and pages 3, paragraphs 50, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication). Regulinski teaches that transmitting wireless communications (Fig. 11 teaches satellite transmits wireless communication frequency to mobile terminal) from the space-based component (satellite (4) in Fig. 1) to the radiotelephones (2 in Fig. 11) over a downlink radiotelephone frequency (Fig. 11 and pages 3, paragraphs 50, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel for satellite transmits wireless communication channels to mobile terminal and uplink channel for mobile terminal transmits wireless communication channels to satellite, for example a TDMA time slot on a particular frequency allocated on initiation of a communication). Regulinski teaches that transmitting wireless

communications from an ancillary terrestrial network (terrestrial node (119) transmits wireless communication channels to mobile terminals in Fig. 11) to the radiotelephones and transmitting wireless communications (wirelessly transmitting to downlink radio frequency) from the radiotelephones (mobile terminal has a dual mode for recognizing satellite channels and terrestrial network channels) to the ancillary terrestrial network (terrestrial node (119) in Fig. 11) over the downlink satellite radiotelephone frequency in a time-division (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 23**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that transmitting wireless communications from the ancillary terrestrial network (terrestrial node (119) transmits wireless communication channels to mobile terminals in Fig. 11) to the radiotelephones (112 in Fig. 11) and transmitting wireless communications from the radiotelephones to the ancillary terrestrial network (Fig. 11) over the uplink satellite radiotelephone

frequency in a time-division duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a call, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 25**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 9) and wherein the method further comprises transmitting wireless communications from the ancillary terrestrial network (119 in Fig. 11) to the radiotelephones (terrestrial downlink and uplink frequency band) and transmitting wireless communications from the radiotelephones to the ancillary terrestrial network (terrestrial downlink and uplink frequency band) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 9, 10) in a time-division duplex mode (Fig. 9, 10, pages 3, paragraphs 50 and pages 8, paragraphs 143, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink

channel and uplink channel, for example a TDMA time slot on a particular frequency band allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 29**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that transmitting wireless communications from an ancillary terrestrial network (terrestrial node (119) transmits wireless communication channels to mobile terminals in Fig. 11) to radiotelephones (Fig. 11 teaches mobile terminal has a dual mode for recognizing satellite channels and terrestrial network channels) and receiving wireless communications from the radiotelephones (wirelessly transmitting to uplink radio frequency) at the ancillary terrestrial network (terrestrial node (119) in Fig. 11) over a downlink satellite radiotelephone frequency in a time-division duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 30**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that transmitting wireless communications from the ancillary terrestrial network (terrestrial node (119) transmits wireless communication channels to mobile terminals in Fig. 11) to the radiotelephones (112 in Fig. 11) and receiving wireless communications from the radiotelephones at the ancillary terrestrial network (Fig. 11) over an uplink satellite radiotelephone frequency in a time-division duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a call, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 32**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 9) and wherein the transmitting comprises transmitting wireless communications from the ancillary terrestrial network (119 in Fig. 11) to the radiotelephones (terrestrial downlink and uplink frequency band)

and receiving wireless communications from the radiotelephones at the ancillary terrestrial network (terrestrial downlink and uplink frequency band) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 9, 10) in a time-division duplex mode (Fig. 9, 10, pages 3, paragraphs 50 and pages 8, paragraphs 143, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency band allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 36**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that receiving wireless communications from an ancillary terrestrial network (terrestrial node (119) transmits wireless communication channels to mobile terminals in Fig. 11) at radiotelephones (Fig. 11 teaches mobile terminal has a dual mode for recognizing satellite channels and terrestrial network channels) and transmitting wireless communications from the radiotelephones (wirelessly transmitting to uplink radio frequency) to the ancillary terrestrial network (terrestrial node (119) in Fig. 11) over a downlink satellite radiotelephone frequency in a time-division duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) (Fig. 11, pages 3, paragraphs 50,

58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 37**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that receiving wireless communications from the ancillary terrestrial network (terrestrial node (119) transmits wireless communication channels to mobile terminals in Fig. 11) at the radiotelephones (112 in Fig. 11) and transmitting wireless communications from the radiotelephones to the ancillary terrestrial network (119 in Fig. 11) over an uplink satellite radiotelephone frequency in a time-division duplex mode (TDMA duplex mode in satellite mobile terminal in Fig. 11) (see pages 10, paragraphs 185, where teaches TDMA/FDMA satellite system and CDMA terrestrial system, also satellite system could be CDMA and the terrestrial system is TDMA/FDMA) (Fig. 11, pages 3, paragraphs 50, 58, and pages 8, paragraphs 148 - 149, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency allocated on initiation of a call, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 39**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that the downlink satellite radiotelephone frequency comprises a downlink satellite radiotelephone frequency band (downlink satellite radio frequency band in Fig. 9) and wherein the receiving comprises receiving wireless communications from the ancillary terrestrial network (119 in Fig. 11) at the radiotelephone (terrestrial downlink and uplink frequency band), and transmitting wireless communications from the radiotelephones to the ancillary terrestrial network (terrestrial downlink and uplink frequency band) over the downlink satellite radiotelephone frequency band (downlink satellite radio frequency band Fig. 9, 10) in a time-division duplex mode(Fig. 9, 10, pages 3, paragraphs 50 and pages 8, paragraphs 143, where teaches for communication via the satellite network, each mobile terminal is in communication with satellite via full duplex channel comprises a downlink channel and uplink channel, for example a TDMA time slot on a particular frequency band allocated on initiation of a communication, and an terrestrial base node configures to transmit downlink the radio frequency to mobile terminal and receives uplink the radio frequency from mobile terminal in a TDMA duplex mode).

Regarding **claim 43**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that the ancillary terrestrial network is further configured to obtain the wireless communications that are transmitted to, and to provide the wireless communications that are received from, the radiotelephones over a wired terrestrial link (Fig. 1 and pages 2, paragraphs 44 – pages 3, paragraphs 51).

Regarding **claim 44**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 15. Furthermore, Regulinski teaches that the ancillary terrestrial network is not configured to directly communicate wirelessly with the space-based component (Fig. 1, 11 and pages 2, paragraphs 44 – pages 3, paragraphs 51).

Regarding **claim 45**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 43.

Regarding **claim 46**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 44.

Regarding **claim 47**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 43.

Regarding **claim 48**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 44.

Regarding **claim 49**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 43.

Regarding **claim 50**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 44.

Regarding **claim 51**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 43.

Regarding **claim 52**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 44.

Regarding **claim 53**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 43.

Regarding **claim 54**, Regulinski and Emmons teach all the limitation as discussed in claims 1 and 44.

Allowable Subject Matter

4. Claims 3, 5-7, 10, 12-14, 17, 19-21, 24, 26-28, 31, 33-35, 38, and 40-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose the limitation "the time-division duplex mode includes a frame including a plurality of slots, wherein a first number of the slots is used to transmit wireless communications to the radiotelephones over the downlink satellite radiotelephone frequency and wherein a second number of the slots is used to receive wireless communications from the radiotelephones over the downlink satellite radiotelephone frequency, wherein the first number is greater than the second number" as specified in the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Robinett (US 2002/0177465) discloses Multi-Mode Satellite and Terrestrial Communication Device.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

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Hand-delivered responses should be brought to USPTO Headquarters, Alexandria, VA.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay Maung**, can be reached on **(571) 272-7882**. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

JL
February 16, 2009

John J Lee

/JOHN J LEE/
Primary Examiner, Art Unit 2618